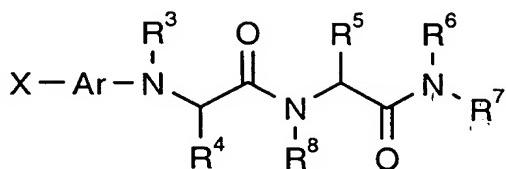


Claims

## 5 1. Compounds of the Formula



(I) wherein

- 10 X is  $\text{H}_2\text{N}-\text{C}(=\text{NH})-$  or  $\text{R}^1-\text{N}=\text{C}(-\text{NH}_2)-$ , wherein  
 $\text{R}^1$  is  $-\text{OH}$ ,  $-\text{C}(=\text{O})\text{OR}^2$ , alkyl, aralkyl, aralkyloxy or a heteroalkyl group, such as alkyloxy, acyl or acyloxy, wherein
- 15  $\text{R}^2$  is alkyl, heteroalkyl, carbocyclic, heterocycloalkyl, aryl, heteroaryl or aralkyl;
- 20 Ar is arylene, heteroarylene, or aralkylene wherein X is directly attached to the aromatic ring system;
- $\text{R}^3$  is H, alkyl, heteroalkyl or aralkyl;
- 25  $\text{R}^4$  is H, an alkyl group which may be substituted with one or more  $-\text{OH}$  or  $-\text{NH}_2$  groups, a heteroalkyl group, a carbocyclic group, a heterocycloalkyl group, an aryl group, a heteroaryl group or an aralkyl group, which groups may be substituted with one or more groups selected from alkyl, heteroalkyl such as alkyloxy, acyl or acyloxy; a carbocyclic group, heterocycloalkyl, aryl, heteroaryl or aralkyl;
- 30  $\text{R}^5$  is H, alkyl, heteroalkyl, carbocyclic, heterocycloalkyl, aryl, heteroaryl or aralkyl;
- $\text{R}^6$  is H, alkyl, heteroalkyl, carbocyclic, heterocycloalkyl, aryl, heteroaryl or aralkyl;

R<sup>6</sup> and R<sup>7</sup> are independently H, alkyl, heteroalkyl, carbocyclic, heterocycloalkyl such as aryl-heterocycloalkyl, aryl, heteroaryl, aralkyl or heteroarylalkyl, which groups may be substituted with one or more groups selected from alkyl, heteroalkyl such as alkoxy, acyl or acyloxy, a carbocyclic group, heterocycloalkyl, aryl, heteroaryl, aralkyl, -OH or -NH<sub>2</sub>, or are members of a heterocycloalkyl ring system, in particular an aryl-heterocycloalkyl ring system, or a heteroaryl ring system, which systems may be substituted with one or more groups selected from alkyl, heteroalkyl such as alkoxy, acyl or acyloxy, a carbocyclic group, heterocycloalkyl, aryl, heteroaryl, aralkyl, -OH or -NH<sub>2</sub>; and

R<sup>8</sup> is H, alkyl, heteroalkyl, carbocyclic, heterocycloalkyl, aryl, heteroaryl or aralkyl; or a pharmacologically acceptable salt, solvate, hydrate or formulation thereof.

2. Compounds according to Claim 1, wherein

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X is H<sub>2</sub>N-C(=NH)- or R<sup>1</sup>-N=C(-NH<sub>2</sub>)-; wherein R<sup>1</sup> is -OH or -C(=O)OR<sup>2</sup>; wherein R<sup>2</sup> is alkyl, heteroalkyl, carbocyclic, heterocycloalkyl, aryl, heteroaryl or aralkyl;

Ar is arylene, heteroarylene, or aralkylene;

R<sup>3</sup> is H, alkyl, heteroalkyl or aralkyl;

R<sup>4</sup> is H, alkyl which may be substituted with -OH or -NH<sub>2</sub> groups, heteroalkyl, carbocyclic, carboxyalkyl ester, heterocycloalkyl, aryl which may be substituted with acyl groups, heteroaryl or aralkyl;

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R<sup>s</sup> is H, alkyl, heteroalkyl, carbocyclic, or aralkyl;

5 R<sup>6</sup> and R<sup>7</sup> are independently H, alkyl, heteroalkyl, carbocyclic, heterocycloalkyl, aryl, heteroaryl, arylheterocycloalkyl which may be substituted with acyl groups; heteroalkylaryl which may be substituted with alkyl groups, aralkyl which may be substituted with acyl groups, or are members of the same heteroalkyl, cycloalkyl, heterocycloalkyl, aryl, heteroaryl which may be substituted with alkylene groups, or aralkyl ring system, which may be substituted with -OH or -NH<sub>2</sub> groups; and

10 R<sup>8</sup> is H;  
15 or a pharmaceutically acceptable salt, solvate, hydrate or formulation thereof.

20 3. Compounds according to Claim 1 or 2, wherein  
X is H<sub>2</sub>N-C(=NH)- or HO-N=C(-NH<sub>2</sub>)- or R<sup>2</sup>OC(=O)-N=C(-NH<sub>2</sub>)-,  
R<sup>3</sup> is H,  
Ar is meta-phenylene, and  
R<sup>5</sup> is a small alkyl or an aralkyl group.

25 4. Compounds according to Claims 1 to 3, wherein  
X is H<sub>2</sub>N-C(=NH)- or HO-N=C(-NH<sub>2</sub>)- or R<sup>2</sup>OC(=O)-N=C(-NH<sub>2</sub>)-,  
R<sup>3</sup> is H,  
R<sup>4</sup> is H, methyl, hydroxymethyl, isopropyl, 2-imidazolyl,  
3-pyrazolyl,  
30 Ar is meta-phenylene,  
R<sup>5</sup> is a small alkyl or an aralkyl group, and  
R<sup>8</sup> is H.

35 5. Compounds according to Claims 1 to 4, wherein  
X is H<sub>2</sub>N-C(=NH)- or HO-N=C(-NH<sub>2</sub>)- or R<sup>2</sup>OC(=O)-N=C(-NH<sub>2</sub>)-,  
R<sup>3</sup> is H,  
R<sup>4</sup> is H, methyl, hydroxymethyl, 1,2-dihydroxyethyl, ethoxycarbonyl, isopropyl, cyclopropyl, 2-imidazolyl, 2-

*Sub B2*

pyrrolyl, 3-pyrazolyl, 2-pyridyl, 4-methoxycarbonyl-phenyl,

Ar is meta-phenylene,

R<sup>5</sup> is a small alkyl or an aralkyl group,

5 R<sup>6</sup> is H and R<sup>7</sup> is optionally substituted 1H-indol-3-yl-ethyl, 4-hydroxy-phenylethyl, cyclohexyl, N-(2-methoxy-phenyl)piperazinyl, 1,3-benzodioxol-5-ylmethyl, benzyl, phenethyl, 3,4-dimethoxyphenyl-1-ylmethyl, 2-methoxy-phenyl-1-ylmethyl, 2-(4-morpholinyl)ethyl, 2-pyridinylethyl, 2-pyridinylpropyl, 3-pyridinylmethyl or R<sup>6</sup> and R<sup>7</sup> are part of a tetrahydroisoquinoline ring, a 4-thiomorpholine ring, a N-(2-methoxyphenyl)piperazine ring or a N-(4-methoxyphenyl)piperazine ring, and R<sup>8</sup> is H

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15 6. Compounds according to Claim 1, wherein X is H<sub>2</sub>N-C(=NH)- or HO-N=C(-NH<sub>2</sub>)- or R<sup>2</sup>OC(=O)-N=C(-NH<sub>2</sub>)-, R<sup>3</sup> is H,  
Ar is para-phenylmethlene group, and R<sup>5</sup> is a small alkyl or an aralkyl group.

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25 7. Compounds according to Claims 1 and 6, wherein X is H<sub>2</sub>N-C(=NH)- or HO-N=C(-NH<sub>2</sub>)- or R<sup>2</sup>OC(=O)-N=C(-NH<sub>2</sub>)-, R<sup>3</sup> is H,  
R<sup>4</sup> is H, methyl, hydroxymethyl, isopropyl, 2-imidazolyl, 3-pyrazolyl,  
Ar is para-phenylmethlene group, and R<sup>5</sup> is a small alkyl or an aralkyl group.

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35 8. Compounds according to Claims 1, 6 and 7, wherein X is H<sub>2</sub>N-C(=NH)- or HO-N=C(-NH<sub>2</sub>)- or R<sup>2</sup>OC(=O)-N=C(-NH<sub>2</sub>)-, R<sup>3</sup> is H,  
R<sup>4</sup> is H, methyl, hydroxymethyl, 1,2-dihydroxyethyl, ethoxycarbonyl, isopropyl, cyclopropyl, 2-imidazolyl, 2-pyrrolyl, 3-pyrazolyl, 3- or 4-phenoxy-phenyl, 1,3-benzodioxol-5-yl, 2-pyridyl, 4-methoxycarbonyl-phenyl,  
Ar is para-phenylmethlene group,  
R<sup>5</sup> is a small alkyl or an aralkyl group,

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R<sup>6</sup> is H and R<sup>7</sup> is optionally substituted 1H-indol-3-yl-ethyl, 4-hydroxy-phenethyl, cyclohexyl, N-(2-methoxy-phenyl)pirazinyl, 1,3-benzodioxol-5-ylmethyl, benzyl, phenethyl, 3,4-dimethoxyphenyl-1-ylmethyl, 2-methoxy-phenyl-1-ylmethyl, 2-(4-morpholinyl)ethyl, 2-pyridinylethyl, 2-pyridinylpropyl, 3-pyridinylmethyl or R<sup>6</sup> and R<sup>7</sup> are part of a tetrahydroisoquinoline ring, a 4-thiomorpholine ring, a N-(2-methoxyphenyl)piperazine ring or a N-(4-methoxyphenyl)piperazine ring, and R<sup>8</sup> is H.

9. Pharmaceutical compositions containing a compound according to Claims 1 to 8 as the active agent and optionally carriers and/or adjuvants.

10. Pro-drugs, which are composed of a compound according to Claims 1 to 8 and at least one pharmacologically acceptable protective group which will be cleaved off under physiological conditions.

11. Process for the preparation of a compound according to Claims 1 to 8, wherein

a) a compound of Formula I, where X is a cyano group, is converted to a compound of Formula I, where X is a group of the Formula H<sub>2</sub>N-C(=NH)- or R<sup>1</sup>-N=C(-NH<sub>2</sub>)-, and b) this compound is optionally converted into a physiologically acceptable salt, solvate or hydrate.

12. Use of a compound, a pharmaceutical composition or a pro-drug according to claims 1 to 10 for the manufacture of medicaments for the inhibition of tryptase.

13. Use of a compound, a pharmaceutical composition or a pro-drug according to Claims 1 to 10 for the manufacture of medicaments for the treatment and/or prevention of diseases that are mediated by tryptase activity.

14. Use of a compound, a pharmaceutical composition or a

pro-drug according to Claims 1 to 10 for the manufacture of medicaments for the treatment and/or prevention of allergic or inflammatory diseases.

- 5 15. Use of a compound, a pharmaceutical composition or a pro-drug according to Claims 1 to 10 for the manufacture of medicaments for the treatment and/or prevention of asthma, allergic rhinitis, chronic obstructive pulmonary diseases, emphysema, viral and bacterial pulmonary infections and inflammatory responses, rheumatoid arthritis, multiple sclerosis, osteoarthritis, dermatological diseases, psoriasis, conjunctivitis, inflammatory bowel diseases, peptic ulcers, cardiovascular diseases, anaphylaxis and cancer.

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